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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/480,041	01/10/2000	JEFFERSON B. BURCH	10982344	3831

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EXAMINER
BUI, BRYAN

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 12/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MP

Office Action Summary	Application No. 09/480,041	Applicant(s) BURCH
	Examiner B. Bui	Group Art Unit 2863

—Th MAILING DATE of this communication appears on th cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If th period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☑ Responsive to communication(s) filed on 10/7/02

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☑ Claim(s) 10 - 28 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☑ Claim(s) 10 - 28 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☑ Information Disclosure Stat ment(s), PTO-1449, Paper No(s). 8

☐ Int rvi w Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Pat nt Application, PTO-152

☐ Notice of Draftsperson's Pat nt Drawing Review, PTO-948

☑ Other References 6,205,362 and 5,566,186 have been in record.

Office Action Summary

DETAILED ACTION

Notice to Applicant

1. Applicant's papers filed on 10/7/2002 have been received and entered. Claims 1-3, 6 and 9 have been cancelled. Claims 10-14 have been amended. Claims 15-28 have been added. Claims 10-28 are pending in the application.

2. Applicant's remarks have been considered but are moot in view of the new ground of the rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 15, 16 and 18-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eidson (U.S. Patent No. 6,205,362).

With respect to claims 15, 16 and 18-28, Eidson ('362) teaches a distributed system comprising a set of nodes that communicate via a network, a set of node applications distributed among the nodes (see e.g. Figure 1); each node application having at least one function which is associated with **a significant event (depends on the type of associated distributed**

application, such as a receipt of sensor data, a generation of a control value in the distributed application, database access, and an application of a control value to an actuator) for generating a time stamp record for each of a set of significant events associated with one or more node applications include a synchronized clock to provide a synchronized time base across the nodes (see, e.g. column 3, lines 5-42). It should be noted that the term a recorder function and event log do not disclose in the reference. Eidson, however, discloses component node with built in behavior (coding, collective, etc) comprises a memory for storing the events, configuration messages in the application controls in a distributed control system that implemented with programmable logic controllers using self describing **packets including time stamps** corresponding to the software events and a time value obtained from one of the synchronized clocks (see, e.g column 1, lines 11-32, column 3, lines 5+, column 5, lines 59-66, and column 10, lines 41-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Eidson as the operation function of a recorder function and event log as claimed invention for generating a time-stamp record for each of a set of significant events associated with one or more node applications include a synchronized clock to provide a synchronized time base across the nodes, because this operation function performing in a distributed system having the same result as claimed invention, this would have allowed for a greater system in communication network. Eidson further teaches function for starting and stopping the time stamp records (see, e.g. column 5, lines 23-35).

5. Claim17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eidson (U.S. Patent No. 6,205,362) in view of Eidson (U.S. Patent No. 5,566,180).

With respect to claim 17, Eidson (362) teaches the features of the claimed invention, except that each recorder function obtains the event code from the corresponding function and writes the event code into the corresponding event log along with the corresponding time-stamp. Eidson (180) teaches a time-stamp record include identifier corresponds to the software event in distributed network of nodes with clock synchronization (see, e.g. Fig 3, column 3, lines 7-23, and column 5, lines 3+). It would have been obvious to one of ordinary skill in the art to modify the teachings of Eidson ('362) to include a time-stamp record include identifier corresponds to the software event in distributed network of nodes with clock synchronization as taught by Eidson ('180), because Eidson ('180) teaches a precise manner of identifier in timing packet for unique identification the events in the distributed system.

6. Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eidson (U.S. Patent No. 6,205,362) in view of Eidson (U.S. Patent No. 5,566,180).

With respect to claims 10-11, Eidson ('362) teaches a distributed system comprising a set of nodes that communicate via a network, a set of node applications distributed among the nodes (see e.g. Figure 1); each node application having at least one function which is associated with **a significant event** (depends on the type of associated distributed application, such as a receipt of sensor data, a generation of a control value in the distributed application, database access, and an application of a control value to an actuator) for generating a time stamp record for each of a set

of significant events associated with one or more node applications include a synchronized clock to provide a synchronized time base across the nodes (see, e.g. column 3, lines 5-42). It should be noted that the term a recorder function does not disclose in the reference. Eidson, however, discloses component node with built in behavior (coding, collective, etc) comprises a memory for storing the events, configuration messages in the application controls in a distributed control system that implemented with programmable logic controllers using self describing **packets including time stamps** corresponding to the software events and a time value obtained from one of the synchronized clocks (see, e.g column 1, lines 11-32, column 3, lines 5+, column 5, lines 59-66, and column 10, lines 41-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Eidson as the operation function of a recorder function as claimed invention for generating a time-stamp record for each of a set of significant events associated with one or more node applications include a synchronized clock to provide a synchronized time base across the nodes, because this operation function performing in a distributed system having the same result as claimed invention, this would have allowed for a greater system in communication network. Eidson does not expressly indicate "running an experiment" as claimed application. However, Eidson shows the operation of first example application in the distributed system which indicate one or more of the significant events (e.g. column 10, lines 11-55). Therefore, it would have been obvious to one of ordinary skill in the art to include a step of running experiment in the distributed application that generates one or more of the significant events in the teachings of Eidson, because Eidson teaches a precise manner for

the time stamp records corresponds to the events in the operation of the first example application which have the same function to provide the running an experiment. The suggestion would have made a system more accurate.

Eidson ('362) does not expressly disclose each time-stamp record include identifier. Eidson ('180) teaches a time-stamp record include identifier corresponds to the software event in distributed network of nodes with clock synchronization (see, e.g. Fig 3, column 3, lines 7-23). It would have been obvious to one of ordinary skill in the art to modify the teachings of Eidson ('362) to include a time-stamp record include identifier corresponds to the software event in distributed network of nodes with clock synchronization as taught by Eidson ('180), because Eidson ('180) teaches a precise manner of identifier in timing packet for unique identification the events in the distributed system.

With respect to claims 12-14, Eidson ('362) teaches each of component nodes comprises a memory for storing the events, configuration messages in the application controls in a distributed control system that implemented with programmable logic controllers using self describing packets including time stamps (see, e.g column 1, lines 11-32, column 10, lines 41-55). Eidson ('362) does not show steps of: generating a graphical represent of the time stamp records; determining a set of delays, and correcting the time stamp records in response to the delays. Eidson ('180) teaches these limitations (see, e.g. column 7, line 10 to column 8, line 23). It would have been obvious to one of ordinary skill in the art to modify the invention as taught by Eidson

('362) to include these functional elements of Eidson ('180), because Eidson ('180) teaches a precise manner of generating a graphical of the time stamp records, determining a set of delays in execution of the node applications and making the correction of the time-stamp records in response to the delays in the same field of the application nodes in distributed system.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan Bui whose telephone number is (703) 305-4490. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:00pm. The examiner can also be reached on alternate Fridays from 7:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow, can be reached on (703) 308-3126.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-7382/308-7722 (for informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Plaza 4, Arlington. VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

B Bui

12/11/2002

BRYAN BUI
PRIMARY EXAMINER